

**Abstract of the Disclosure**

The invention concerns a method of generating morphemes for speech recognition and understanding. The method may include receiving training  
5 speech, selecting candidate sub-morphemes from the training speech, selecting salient sub-morphemes from the candidate sub-morphemes based on salience measurements, and clustering the salient sub-morphemes based on semantic and syntactic similarities into morphemes. The morphemes may be acoustic and/or non-acoustic. The sub-morphemes may represent any sub-unit of  
10 communication including phones, phone-phrases, grammars, diphones, words, gestures, tablet strokes, body movements, mouse clicks, etc. The training speech may be verbal, non-verbal, a combination of verbal and non-verbal, or multimodal.